SBR-41/21-8

Original/Duplicate/Triplicate
CONTRACT CERTIFICATE

(For Other Works)

Date.....2018-19

No. *First & Final Bill*

Division: **BBMP, Byatarayanapura** Sub-Division: **BBMP, Vidyaranyapura**

Bill Received No. Dated Divisional / Sub Divisional Cash Book Voucher No..... Dated.....

Work Code: 009-18-000005, 009-18-000006, 009-18-000007

Schedule Docket No. Head of Account: **P-3111** **Est.Cost: 180.00 Lakhs** D.R.No. :

Name of Work (as per sanctioned estimate: PACKAGE-6 : 1) IMPROVEMENTS TO OPEN SPACES IN DIFFERENT PLAY GROUND IN WARD NO. 09 (VIDYARANYAPURA), VIDYARANYAPURA SUB DIVISION. 2) IMPROVEMENTS AND ASPHALTING TO ROADS AND DRAINS NEAR CHAMUNDESHWARI TEMPLE AREA, DODDABOMMASANDRA IN WARD NO. 09 (VIDYARANYAPURA), VIDYARANYAPURA SUB DIVISION. 3) ASPHALTING TO BALANCE ROADS AT BEL LAYOUT, HMT LAYOUT, NTI LAYOUT, DEFENCE LAYOUT, THINDLU AND SURROUNDING AREAS IN WARD NO. 09 (VIDYARANYAPURA), VIDYARANYAPURA SUB DIVISION.

Name of Contractor and Full Address: *Sri Chidananda Murthy. R, Contractor, # 16, 2nd Cross, Vinayaka Layout, Horamavu, Bangalore - 43.*

Reference to Agreement No. **BBMP/EE/BTP/M.WO/79/2018-19** Date: **03.08.2018**

Certified that the measurements were taken by me on 10/8/2018 and recorded of **Pages** 357750 **to** 357754 of measurement Book No. 3578/2017-18 and that the work is satisfactorily executed.

Contractor

10/8/2018
Officer-in-charge of work

Certified that the measurement were taken by me on .....and found correct. The work is satisfactorily executed.

Certified that the quantities of materials shown in column 3 of Account have been actually brought to site of the work and the contractor has not previously received any advance on this security. These materials are of and imperishable nature and are all required for immediate use on the work in connection with items for finished work have been agreed upon. A normal agreement signed and executed by the contractor is recorded in the office.

Sub-Division Officer

Assistant Executive Engineer
Vidyaranyapura Sub Division
BBMP, Bangalore - 97

II Memorandum of Payment

1) Total value of work done or supplies made as per account within	I & F Final Bill	1,75,92,376-
2) Deduct amount to be held in reserve being .....percent Rs.....		
3) " Balance		
4) Deduct Payment:		
a. Amount of previous payment as in the Office Cash Book Voucher No.....Dated.....S.D. No..... adjusted towards cash advance recovery of	I.T. Amount	175924-
	Cess	17592A-
	CBT	17592-
b. Payments Now made { cost store or other material supplied. recovery of amount creditable to this/other work Amount paid on this bill Cheque / Cash.	L.R.	192988-00
5) Balance being unpaid value of work done held in reserve.		
6) Deduct cash advance made on the Office cash Book Voucher No..... dated.....less adjustments.	Adjusted	5,62,428-00
7) Net amount due to or from Contractor unadjustments items.		
8) Advance to Contractor for materials brought to site (as detailed) within.		
9) Value of Government materials supplied.	Total amount adjusted -	1,70,29,948-00

Contractor's Signature

Received Rs..... (in words).....

.....

by cash and by adjustment of Payment as per memorandum (in final settlement of all demands)

1,75,92,376-00
5,62,428-00
1,70,29,948-00

(For use in the Office)

Witness
1.
2.

Dated Signature of Contractor

Paid by me by Cheque No.....Dated.....

Cash Rs.....

Dated.....

Initials of Officer making payment

Stamp

Rs: One crore seventy lakh twenty nine thousand nine hundred forty eight only.

21/08

Executive Engineer

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Sl. No.		Un
1	Earthwork in surface excavation in ordinary soil for leveling and lowering the ground manually (other than foundation of buildings, culverts, roads drains and trenches of pipe line and cables) and removing the excavated stuff to a distance not exceeding 50m and lift up lift 1.5, excavated surface leveled and neatly dressed disposed earth to be leveled after breaking of clods and neatly dressed as per specifications and as per the directions of the Engineer-in-charge of the work .	Cur
2	Providing and laying in position plain cement concrete of mix 1:4:8(M7.5)with OPC cement @ 180kgs, with 40mm and down size graded granite metal coarse aggregates @0.85cum and fine aggregtes @ 0.57cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation including cost of all materials, labour, HOM of machinery, curing complete as per specifications and as per the directions of the Engineer-in-charge of the work .(Road)	Cur
3	Providing and laying in position plain cement concrete of mix 1:4:8(M7.5)with OPC cement @ 180kgs, with 40mm and down size graded granite metal coarse aggregates @0.85cum and fine aggregtes @ 0.57cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation including cost of all materials, labour, HOM of machinery, curing complete as per specifications and as per the directions of the Engineer-in-charge of the work .(Playground)	Cur
4	Removing B.S.slab of Drain and stacking as per the directions of the Engineer-in-charge of the work .	Sqm
5	Removing and refixing stone slabs of drains and pointing in CM (1:3) as per the directions of the Engineer-in-charge of the work .	Sqm
	Qty Above 125%	Sqm
6	Providing granite slabs of selected quality roughly dressed havinf a size of 7.5 cms thick and fixed in cement mortar (1:6) including fixing curing ete., complete as per the directions of the Engineer-in-charge of the work .	Sqm
	Qty Above 125%	Sqm
7	Providing granite slabs of selected quality roughly dressed havinf a size of 10 cms thick and fixed in cement mortar (1:6) including fixing curing ete., complete as per the directions of the Engineer-in-charge of the work .(Road)	Sqm
9	Earthwork excavation by manual means in ordinary soil involving an average horizontal throw upto 2meters and an average lift upto 1.5 m, excavated surface leveled and sides neatly dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specifications and as per the directions of the Engineer-in-charge of the work .	Cum
10	Lead for disposal of earth shall be payable at Carriage rates (Lead & Lift) by mechanical means including loading and unloading up to 15kms as per the directions of the Engineer-in-charge of the work .	Cum
11	Providing,laying, spreading and compacting crushed stone aggregates of granite/trap/ basalt to wet mix macadam specification including pre mixing the Material with water at OMC in mechanical mix plant carriage of mixed material by tipper to site, laying in uniform layers with paver in sub-base/ base course on well prepared surface and compacting with vibratory roller to achieve the desired density. complete as per specifications and as per the directions of the Engineer-in-charge of the work .	Cum
	Qty Above 125%	Cum
12	Cleaning the existing WBM Road surface including removing of binding materials and other foreign matter with wire brushes and small picks sweeping with brooms or soft brushes and finally dusting with old gunny bags and bar or compressed air to receive bituminous treatment including cost of all materials, labhour, HOM of machineries complet as per specifications and as per the directions of the Engineer-in-charge of the work .	Sqm
	Qty Above 125%	Sqm
13	KSRRB M500-6. Providing and applying primer coat with S.S. bitumen emulsion on prepared surface of granular base such as WMM including cleaning of road surface and spraying primer at the rate of 0.60 kg / sqm using mechanical means complete as per specifications. MORTH Specification No. 502	Sqm
	Qty Above 125%	Sqm
14	Providing and laying bituminous macadam on prepared surface with crushed coarse as per design mix formula for base / binding courseincluding loading of aggregates with F.E. loader, hot mixing of stone aggregates and bitumen in hot mix plant,transporting the mixed material in tipper to paver and laying mixed materials, with paver finisher to the required level and grade,rolling by power roller to achieve the desired density,but excluding cost of primer/tack coat including lead,lift and cost of all materials,labour,HOM of machineries complete as per specification and as per the directions of the Engineer-in-charge of the work .	Cum
	Qty Above 125%	Cum

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Uni	Previous Measurement		Present Measurement			Total Upto Date		Remarks
	Qty.	Cost	Qty.	Rate Rs. P.	Amount	Qty	Cost	
Cun	-	-	1895.78	200.00	379156.00	1895.78	379156.00	
Cun	-	-	13.21	7000.00	92470.00	13.21	92470.00	
Cum	-	-	13.77	6000.00	82620.00	13.77	82620.00	
Sqm	-	-	378.31	80.00	30265.00	378.31	30265.00	
Sqm	-	-	510.29	95.00	48478.00	510.29	48478.00	
Sqm	-	-	118.85	92.81	11030.00	118.85	11030.00	
Sqm	-	-	155.63	850.00	132286.00	155.63	132286.00	
Sqm	-	-	5.35	810.00	4334.00	5.35	4334.00	
Sqm	-	-	631.19	900.00	568071.00	631.19	568071.00	
Cum	-	-	150.92	110.00	16601.00	150.92	16601.00	
Cum	-	-	2046.71	150.00	307007.00	2046.71	307007.00	
Cum	-	-	198.83	2100.00	417543.00	198.83	417543.00	
Cum	-	-	655.79	2047.91	1342999.00	655.79	1342999.00	
Sqm	-	-	864.44	15.00	12967.00	864.44	12967.00	
Sqm	-	-	3408.66	14.90	50789.00	3408.66	50789.00	
Sqm			864.44	22.00	19018.00	864.44	19018.00	
Sqm			3408.66	17.14	58424.00	3408.66	58424.00	
Cum			45.39	6800.00	308652.00	45.39	308652.00	
Cum			168.22	6632.56	1115729.00	168.22	1115729.00	

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No.		Unit	Pr
15	Cleaning the existing black topped surface with brooms,soft brushes and finally dusting with old gunny bags and/or compressed air to receive bituminous treatment including cost of all materials,labhour, HOM of machineries complete as per specifications and as per the directions of the Engineer-in-charge of the work .	Sqm	
16	Providing and applying tack coat using 80/100 grade bitumen(VG10) in boiler fitted with spray set distributor at the rate of 0.20kg per sqm on the existing prepared bituminous surface cleaned with mechanical broom. complete as per specification and as per the directions of the Engineer-in-charge of the work .	Sqm	
17	Providing and laying bituminous concrete using crushed aggregates of specified grading,premixed with bituminous binder and filler,transporting the hot mix to work site,laying with a paver finisher to the required grade, level and alignment,rolling with smooth wheeled,vibratory and tandem rollers to achieve the desired compaction as per MORTH specification clause No.500.9 complete in all respects complete as per specifications and as per the directions of the Engineer-in-charge of the work .	Cum	
18	Road Marking with Hot Applied Thermoplastic Compound with Reflectrising Glass Beads on Bituminous Surface:- Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35. The finished surface to be level, uniform and free from streaks and holes complete as per specifications and as per the directions of the Engineer-in-charge of the work .	Sqm	
19	Dismantling of cement concrete pavement by mechanical means using pneumatic tools, breaking to pieces not exceeding 0.02 cum in volume and stock piling at designated locations and disposal of dismantled materials stacking serviceable and unserviceable materials seperately complete as per specification and as per the directions of the Engineer-in-charge of the work .	Cum	
	Qty Above 125%	Cum	
20	Construction of dry lean cement concrete mix CC1:5:10 with OPC cement @160Kgs, with 25mm and down size graded granite metal coarse aggregate at 0.86cum and fine aggregates @ 0.58cum Sub- base over a prepared sub-grade with (coarse and fine aggregate conforming to IS: 383) aggregate cement ratio not to exceed 15:1. Aggregate gradation after blending to be as per Table 600-1, cement content not to be less than 160 kg/ cum, optimum moisture content to be determined during trial length construction, concrete strength not to be less than 10 Mpa at 7 days, mixed in a batching plant, transported to site, laid with a paver with electronic sensor, compacting with 8-10 tonnes vibratory roller, finishing and curing complete as per specifications and as per the directions of the Engineer-in-charge of the work .	Cum	
	Qty Above 125%	Cum	
21	Cement concrete pavement.Construction of un-reinforced plain cement concrete pavement, thickness as per design, over a prepared sub base with OPC cement or any other type as per clause 1051.2.2 design mix M20/M30 , with 25mm and down size graded granite metal coarse aggregates and fine aggregtes , with superplastisiser @3lts confirming to IS9103-1999 Reaffirmed-2008 , mixed in a concrete mixer of not less than 0.6 cum capacity and appropriate weigh batcher as per approved mix design, laid in approved fixed side form work (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the form work as per drawing). Spreading the concrete with shovels, rackers compacted using needle, screed and plate vibrator and finished in a continuous operation including provision of contraction, expansion, construction and longitudinal joints including groove cutting charges, joint filler, separation membrane, selant primer, joint sealant, admixtures as approved, curing compound, finishing to lines and grades as per drawing complete as per specifications and as per the directions of the Engineer-in-charge of the work .	Cum	
	Qty Above 125%	Cum	
22	Road Marking with Hot Applied Thermoplastic Compound with Reflectrising Glass Beads on Conrete Surface:- Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms and 2Ltr of Primer per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35. The finished surface to be level, uniform and free from streaks and holes complete as per specifications and as per the directions of the Engineer-in-charge of the work .	Sqm	
	Qty Above 125%	Sqm	
23	Earthwork excavation for foundation of buildings, water supply, sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, in Ordinary Soil not exceeding 1.5 m. in depth including dressing the bottom and sides of pits and trenches, stacking the exavated soil clear from edges of excavation with lead upto 50 m. after breaking of clods complete as per specifications.	Cum	
25	Providing and laying in position plain cement concrete of mix M10 with OPC cement @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @0.892cum and fine aggregtes @ 0.465cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation and plinth, cost of all materials, labour, HOM of machinery, curing complete as per specifications.	Cum	

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Previous Measurement		Present Measurement			Total Upto Date		Remarks
Qty.	Cost	Qty.	Rate Rs. P.	Amount	Qty	Cost	
		17698.61	4.00	70794.00	17698.61	70794.00	
		17944.37	10.00	179444.00	17944.37	179444.00	
		814.10	10000.00	8141000.00	814.10	8141000.00	
		319.04	600.00	191424.00	319.04	191424.00	
		69.78	950.00	66291.00	69.78	66291.00	
		30.66	934.32	28646.00	30.66	28646.00	
		69.78	4500.00	314010.00	69.78	314010.00	
		30.66	4441.54	136178.00	30.66	136178.00	
		73.26	6500.00	476190.00	73.26	476190.00	
		14.62	6487.82	94852.00	14.62	94852.00	
		17.50	800.00	14000.00	17.50	14000.00	
		3.09	783.69	2422.00	3.09	2422.00	
		267.50	220.00	58850.00	267.50	58850.00	
		12.54	6500.00	81510.00	12.54	81510.00	

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Sl. No.		Unit
26	Providing and constructing granite / trap / basalt size stone masonry in foundation with cement mortar 1:8 stone hammerd dressed in courses not less than 20 cms high, bond stones at two m. apart in each course including cost of materials, labour, curing complete as per specifications.	Cum
27	Providing and constructing granite / trap / basalt size stone masonry in superstructure with cement mortar 1:6 , edges of stones chistle dressed in courses not less than 15 cms high, bond stones at two m. apart in each course including cost of materials, labour, scaffolding, curing complete as per specifications.	Cum
28	Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for foundations, footings, bases of columns for mass concrete including cost of all materials, labour complete as per specificaitons.	Sqm
30	Providing and laying in position plain cement concrete of mix M20 with OPC cement @ 300kgs, with 20mm and down size graded granite metal coarse aggregates @0.64cum and fine aggregtes @ 0.43cum, with superplastisiser @3lts confirming to IS9103-1999 Reaffirmed-2008, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation,plinth and cills, including cost of all materials, labour, HOM of machinery, curing complete as per specifications.	Cum
	Qty Above 125%	Cum
31	Providing and laying in position reinforced cement concrete of design mix M25 with OPC cement @ 340kgs, with 20mm and down size graded granite metal coarse aggregates @0.70cum and fine aggregtes @ 0.47cum, with superplastisiser @3lts confirming toIS 9103-1999 Reaffirmed-2008 at machine mixed, concrete laid in layers not exceeding 15 cms thick, vibrated for all works in foundation for footings, pedestals, retaining walls, return walls, walls (any thickness) including attached plasters,columns, piers, abutments, pillars, posts, struts, buttresses, bed blocks, anchor blocks,& plinth etc., including cost of all materials, labour, HOM of machinery, curing, complete as per specifications.	Cum
	Qty Above 125%	Cum
33	Providing T.M.T bars Fe 500 steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications.	Tonne
	Qty Above 125%	Tonne
37	Providing 20mm thick cement plaster in single coat with cement mortar 1:3, to stone masonry & concrete surface including rounding off corners wherever required smooth rendering, : Providing and removing scaffolding, including cost of materials, labour, curing complete as per specifications.	Sqm
	Qty Above 125%	Sqm
38	Providing and finishing external walls with primer in two coats with waterproof cement paint of approved brand and shade to give an even shade after throughly brooming the surface to remove all dirt and loose powdered material, free from mortar drops and other foreign matter cost of materials, labour, complete as per specifications.	Sqm
	Qty Above 125%	Sqm
46	Conveying the excavated earth, debries etc., with all lead and lifts including loading and unloading charges etc., complete as per the direction of the Engineer-in-charge.	Cum
	EIRL	
E1	Providing and fixing **M.S. Gate** as per Chief Architect Drawing,using 50mm x 50mm 14 guage M.S. hollow pipe frame work bent to ornamental shape as shown in the drawing and 35mm x 6mm and 16 x 16mm Square rods for verticals alternatively spaced at 4cms c/c in two halves and 40mmx6mm M.S. flats for horizontal member and at the top cast iron spikes are provided at alternate vertical members as shown in the drawing etc., complete. All the steel surface should be thoroughly cleaned free of rust and painted with anti corrosive paint (shop paint) etc., complete. The work includes cost of all materials, labour charges for all items of work, hire charges for welding, cutting and grinding equipment, and electricity charges, with lead and lift, loading and unloading charges, etc., complete as per specifiocation. (Pg no:42.Item no:7.37)	Sqm
E2	KSRB 15-18.2 : Providing and applying enamel metal paint two coats (excluding priming coat) over new steel or other metal surface brushing to give an even shade after cleaning oil, grease, dirt and other foreign matter, including cost of materials, labour, complete as per specifications. Pg no:121.Item no:15.74	Sqm
E3	Providing and fixing **Granite Benches** including coat of materials and labour as per specification (Data Rate to be Approved)	Nos

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evious Measurement		Present Measurement			Total Upto Date		Remarks
Qty.	Cost	Qty.	Rate Rs. P.	Amount	Qty	Cost	
		39.14	5500.00	215270.00	39.14	215270.00	
		15.82	7000.00	110740.00	15.82	110740.00	
		28.14	350.00	9849.00	28.14	9849.00	
		4.11	7000.00	28770.00	4.11	28770.00	
		8.60	6819.14	58645.00	8.60	58645.00	
		15.00	8000.00	120000.00	15.00	120000.00	
		39.34	7752.99	305003.00	39.34	305003.00	
		3.20	80000.00	256000.00	3.20	256000.00	
		4.95	76896.63	380638.00	4.95	380638.00	
		85.84	400.00	34336.00	85.84	34336.00	
		61.10	360.65	22036.00	61.10	22036.00	
		84.84	120.00	10181.00	84.84	10181.00	
		62.10	112.01	6956.00	62.10	6956.00	
		162.29	150.00	24344.00	162.29	24344.00	
		16.02	3604.42	57743.00	16.02	57743.00	
		16.02	100.74	1614.00	16.02	1614.00	
		9.00	9668.75	87019.00	9.00	87019.00	

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Sl. No.		Unit
E4	Providing Children play standard **Sea Saw** Seater Equipment : This equipment is made up of main beam 50mm MS pipe 'A' class of length 98mtr with two handles welded at the ends as a hand are made of 20mm 'A' class pipe. The main beam is pivoted to the bottom supports of 40mm MS pipes by bush bearing clamped by pivot joints which swivel over 28mm dia steel shaft which gets installed in the ground by meas of concrete 2 Nos. seats are made of 250 mm x 200 mm x 18 SWG MS sheets with T hand rest at the front. Air pipe are if ISI grade. All the pipes are painted with two coats of super set paint over a coat of protective Zinc chromate yellow oxide including fixing the play equipments in CC 1:2:4, curing etc., complete with all lead, lift, loading, unloading and any other incidental charges and as perthe draing and specification and direction of the engineer in charge of the work.(Data Rate to be Approved)	Nos
E5	Providing Children play **Merry-go-Round** equipment : Made of MS 'A' Class pipes. Main pillars in 100 mm dia fitted with shaft and two bearing the other cross members are in 25 & 20 mm MS A Class pipe the bottom ring is made out of 25mm of ring size is 1.20 mts dia fitted with four seats are in mental sats if 250 x 200 x 18 SWG handles are made out of 20mm NB pipes and othe supports are in 25mm MS 'A' Class pipes. All the pipes are painted with two coats of super set paint over a coat of protective Zinc chromate yellow oxide including fixing the play equipments in CC 1:2:4, curing etc., complete with all lead, lift, loading, unloading and any other incidental charges and as perthe draing and specification and direction of the engineer in charge of the work.(Data Rate to be Approved)	Nos
E6	Providing Children play **Duck Swing (2 seater),** including coat of materials and labour as per specification (Data Rate to be Approved).	Nos
E7	Providing Children play **Mini Slide,** including coat of materials and labour as per specification (Data Rate to be Approved).	Nos
E8	Providing Children Play **2 - Seater Swing** : This Swing consosts of 2 Nos, seat of solid fibbed FP of size 480 mm x 180 mm x 3.5 mm supported by MS chains. The chains are supported by circular housing with bearing from which the chain in suspended. The main beam is of 50 mm MS 'A' class pipe Size of MS chain 30 mm x 20 mm x 5mm thick The 2 Nos inverted 'V' beams are of 50 mm 'A' class pipes secured at the top the main beam by means of CI castings (Heavy duty for elders) All pipes are of ISI grade all the pipes are painted with two coats of super set paitng over a coat of protective Zinc chromate yellow oxide including fixing the play equipments in CC 1:2:4, curing etc., complete with all lead, lift, loading, unloading and any other incidental charges and as perthe draing and specification and direction of the engineer in charge of the work.(Data Rate to be Approved)	Nos
E9	KSRRB M200-29. **Dismantling of barbed wire fencing** / wire mesh fencing including posts, foundation concrete, back filling of pit by manual means including disposal of dismantled material with all lifts and stacking serviceable material and unserviceable material separately complete as per specifications. MORTH Specification No. 202 (Pg No. 139, Item No. 18.54)	M
E10	KSRRB M200-17.1. Dismantling of existing structures like culverts, bridges, retaining walls and other structure comprising of masonry, cement concrete, wood work, steel work, including T&P and scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts complete as per specifications. v) **Steel work** in all types of Sections upto a Height of 5 m above plinth level excluding Cutting of Rivet. – A. Including dismembering.(P.No.138/ I.No. 18.33)	Tonne
E11	KSRRB 200-9. Clearing and grubbing road land including uprooting rank vegetation, grass, brush, shrubs, saplings and trees of girth upto 300mm, by manual means, in area of thorney jungle, removal of stumps, disposal of unserviceable materials, stacking of serviceable materials labour charges complete as per specifications. MORTH / Chapter 2. Pg No. 136, Item No. 18.12	Sqm
E12	KSRRB 300-Compaction KSRRB 300-58. Compaction of original ground with maximum of 6 passes of 8 to 10 tonnes power roller including filling in depression occuring during rolling including cost of all labour, HOM of machinery complete as per specifications. MORTH / Chapter 3	Sqm
E13	KSRRB M300-53. Construction of embankment with approved material Gravel/Murrum with all lifts and leads, transporting to site, spreading, grading to required slope and compacting to meet requirement Table 300- 2 complete as per specifications.(which includes cost of gravel / murrum, watering charges & compaction by vibratory roller)MORTH Specification No. 305	Cum
E14	KSRB 2.8 : Providing and Filling in foundation with granite / trap broken metal 100mm. and down size, with approved sand including hand packing, ramming, watering, including cost of all materials and labour with all lead and lift. complete as per specifications. Specification No. KBS Pg No 6, Item No 2.15	Cum
E15	KSRB 5-14.1: Providing and constructing load bearing wall with precast solid concrete blocks of size 400X200X200mm having block density not less than 1800kg/m3 having a minimum average compressive strength 5.00N/mm2 confirming to IS 2185 (part 1) :2005 and constructed with cement mortar 1:4,as per IS 2572:2005 including cost of materials, labour charges, scaffolding, curing, hire charges of machinaries etc., complete as per specifications.	Sqm

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Previous Measurement		Present Measurement			Total Upto Date		Remarks
Qty.	Cost	Qty.	Rate Rs. P.	Amount	Qty	Cost	
		2.00	42222.18	84444.00	2.00	84444.00	
		1.00	42222.18	42222.00	1.00	42222.00	
		1.00	79199.92	79200.00	1.00	79200.00	
		1.00	28888.86	28889.00	1.00	28889.00	
		1.00	62222.16	62222.00	1.00	62222.00	
		48.60	51.60	2508.00	48.60	2508.00	
		2.40	1476.66	3544.00	2.40	3544.00	
		405.86	11.06	4489.00	405.86	4489.00	
		405.86	6.10	2476.00	405.86	2476.00	
		81.17	371.00	30114.00	81.17	30114.00	
		25.08	2597.05	65134.00	25.08	65134.00	
		13.50	1151.10	15540.00	13.50	15540.00	

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No.		Unit
E16	Supplying and fixing M.S. Rectangular poles made out of 2 equal angles of 65x65x6 mm welded together and fixed in CC (1:2:4) WITH 2 NOS 16mm dia M.S. hold fast rods each of length 25 cms. Including cost of all materials cutting, bending scaffolding wherever necessary, nicely finishing the welded joints with all lead lifts and as per the directions of the Engineer- in - charge of the work and including providing 2 coats of approved quality paint over one coat of shop painting (excluding cost of earthwork and concrete)	M
E17	Providing chain link fencing 50mm size of 8 guage properly stretched between rectangular poles and fixed with suitable bolts & nuts, the free ends shall be welded to the pole and block pipe at top and bottom as required including cost of all materials, labour, lead and lifts and as per the directions of the Engineer-in-charge of work including two coats of approved quality paint over one coat of shop paint.	Sqm
E18	Providing and fixing M.S. Block pipe of 38mm dia , of heavy guage of 14 including removing the bends, cutting the pipe, and fixing pipe in between the two verticle poles (M.S. rectangular poles) and spot welding the chain link with M.S. block pipe including cost of all materials wastage in cutting, and scaffolding wherever necessary with all lead and lift as directed by the Engineer-in-charge of work etc., complete including two coats of approved quality paint over one coat of shop paint	M
E19	KSRB 4-6.4 : Providing and removing **centering, shuttering, strutting, propping etc**., and removal of form work for vertical surface such as walls at any thickness , including attached pilasters, buttresses, plinth and string courses cost of all materials, labour complete as per specificaitons. Specification No. KBS 4.6.2, Pg No 15, Item No 4.31	Sqm
E20	KSRB 5-11 : Providing and constructing load bearing wall with solid concrete blocks of size 400x150x200 mm having block density not lessthan 1800 kg/m3 and having a minimum average compressive strength 5.00 N/mm2 confirming to IS 2185 (Part) : 2005 and constructed with CM 1:4 , as per IS 2572:2005 including cost of all materials, labour charegs, scaffolding, curing complete as per specifications. KBS No.5.4 (Pg No 25, Item No 5.27.2)	Sqm
E21	KSRRB M2200- Providing Weep Holes KSRRB M2200-8. Providing weep holes in Brick masonry / Plain / Reinforced concrete abutment, wing wall / return wall with 100 mm dia AC pipe, extending through the full width of the structure with slope of 1V :20H towards drawing foce. Complete as per drawing and Technical Specifications complete as per specifications MORTH Specification No.2706 & 2200	Nos/ mtr
E22	LED Street light. Supply of LED Streetlight with pressure die cast aluminum housing body with optimal heat sink for better thermal dissipation. Diffuser with Injection moulded & is made of polycarbonate material with high transmission index, delivering superior light output. Rated life Burning Hrs. 50000 hr. @ Lumen Maintenance of 70%. CCT > 5500K, IP 66 optical and electrical compartment & impact resistance of complete luminaire > IK08. Power Factor >0.9 with mains Current should not be greater than 0.1A to 0.7A & Surge Protection- Min 4 KV along with Over voltage/Overload, short circuit/ miswiring protection. Compatible for pole mounting with outer dia of 40mm to 50mm. Universal Voltage driver to operate wide voltage range from 100V to 270V 50/60Hz application. Over load & Short circuit protection ensures reliable operation in spite of problem in output side. Compliance to IS 10322/IEC 60598, LM 79 & LM 80 Adherence with RoHS. UL approved MCPCB. Top access street light with single screw to ensure ease of maintenance at the sight site location with minimized minimal tools. LED Light fixture with .....W System Power consumption. LED Efficiency>130lm/w at 1W & Fixture Efficiency >80lm/w with nominal CRI 75+. housing with supplier word mark / name shall be engraved /	No
	Total	

CERTIFICATE :

1. Certified that the above work done satisfactory and no materials issued from departmentally.

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ious Measurement		Present Measurement			Total Upto Date		Remarks
ty.	Cost	Qty.	Rate Rs. P.	Amount	Qty	Cost	
		79.20	1006.14	79686.00	79.20	79686.00	
		162.00	809.58	131152.00	162.00	131152.00	
		180.00	398.03	71645.00	180.00	71645.00	
		84.92	359.95	30567.00	84.92	30567.00	
		36.60	1020.88	37364.00	36.60	37364.00	
		119.70	206.39	24705.00	119.70	24705.00	
		6.00	35546.88	213281.00	6.00	213281.00	
				17592376.00		17592376.00	

10/8/2018

Assistant Executive Engineer
Vidyaranyapura Sub Division
BBMP, Bangalore - 97

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